

Message Text

CONFIDENTIAL

PAGE 01 STATE 194514
ORIGIN OES-07

INFO OCT-01 ARA-10 EUR-12 ISO-00 L-03 COME-00 /033 R

DRAFTED BY OES:TRREYNDEERS:MLK:OES/ENP/EN:HSPIELMAN
APPROVED BY OES:PTMINK
L - MR HANSELL
ARA - AM0 STEDMAN
NOAA - MR EPSTEIN

-----058334 162250Z /65

O R 162202Z AUG 77
FM SECSTATE WASHDC
TO AMEMBASSY NASSAU IMMEDIATE
AMEMBASSY PORT AU PRINCE IMMEDIATE
AMEMBASSY SANTO DOMINGO IMMEDIATE
AMEMBASSY GUATEMALA IMMEDIATE
AMEMBASSY LONDON IMMEDIATE
AMEMBASSY TEGUCIGALPA IMMEDIATE
AMEMBASSY MANAGUA IMMEDIATE
AMEMBASSY BOGOTA IMMEDIATE
AMEMBASSY KINGSTON IMMEDIATE
AMEMBASSY BRIDGETOWN IMMEDIATE
AMEMBASSY PARIS IMMEDIATE
AMEMBASSY THE HAGUE IMMEDIATE
AMEMBASSY MEXICO IMMEDIATE
AMEMBASSY PORT OF SPAIN IMMEDIATE
INFO AMCONSUL MARTINIQUE
AMCONSUL CURACAO
AMCONSUL HAMILTON

C O N F I D E N T I A L STATE 194514

E.O. 11652: GDS

TAGS: TPHY, USXL, XK

SUBJECT:PROPOSED HURRICANE MODIFICATION EXPERIMENT:
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PROJECT STORMFURY-ATLANTIC, AUGUST-OCTOBER, 1977
FOR CUBA, TO SWISS EMBASSY - HAVANA
1) THE USG IS CONSIDERING A PROPOSAL BY THE NATIONAL
OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) OF THE
DEPARTMENT OF COMMERCE TO RESUME ITS HURRICANE MODIFICATION
EXPERIMENT, STORMFURY, IN THE WESTERN ATLANTIC. NOAA WANTS
TO CONDUCT A SINGLE SEEDING EXPERIMENT DURING THE PERIOD

AUGUST 25 TO OCTOBER 15, 1977. PLANNED BASES OF OPERATION ARE MIAMI AND SAN JUAN. ELIGIBLE STORMS INCLUDE ANY MATURE STORM NORTH OF THE GREATER ANTILLES AND WITHIN 700 NAUTICAL MILES OF MIAMI OR SAN JUAN WHOSE CENTER HAS A SMALL PROBABILITY (TEN PERCENT OR LESS) OF COMING WITHIN 50 NAUTICAL MILES OF A POPULATED LAND AREA WITHIN 24 HOURS AFTER SEEDING ENDS. NO SEEDING WOULD BE CONDUCTED IN THE CARIBBEAN OR GULF OF MEXICO. THE EXPERIMENT INVOLVES FIVE HIGHLY INSTRUMENTED AIRCRAFT -- TWO WP-3D'S, TWO WC-130'S AND ONE CONVAIR 990. THESE AIRCRAFT WOULD PROVIDE NEARLY CONTINUOUS LOW-LEVEL MONITORING FROM FOUR HOURS BEFORE SEEDING UNTIL 12 TO 20 HOURS AFTER SEEDING; MIDDLE LEVEL MONITORING, INCLUDING BASIC CLOUD PHYSICS MEASUREMENTS BEFORE, DURING, AND AFTER SEEDING; UPPER LEVEL MONITORING BEFORE, DURING AND AFTER SEEDING; AND NEARLY CONTINUOUS QUANTITATIVE AND

QUALITATIVE RADAR MONITORING. BASIC METEOROLOGICAL DATA GATHERED DURING RESEARCH FLIGHTS WOULD BE DISTRIBUTED IMMEDIATELY, AND ALL RESEARCH DATA WOULD BE IN THE PUBLIC DOMAIN WITHIN ONE YEAR.

2) THE MAIN PURPOSE OF STORMFURY IS TO DETERMINE IF THE WIND SPEED OF A HURRICANE CAN BE DIMINISHED BY SEEDING IT WITH SILVER IODIDE FROM AIRCRAFT FLOWN NEAR THE CENTER OF THE STORM. THE MOST SUCCESSFUL OUTCOME OF PREVIOUS SEEDINGS WAS IN 1969, WHEN WIND REDUCTIONS OF 31 PERCENT

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AND 15 PERCENT AT 12,000 FEET WERE OBSERVED IN HURRICANE DEBBIE. SCIENTIFIC OPINION IS THAT SEEDING DOES NOT SIGNIFICANTLY AFFECT THE PATH, AS OPPOSED TO THE WIND VELOCITY NEAR THE EYE, OF THE HURRICANE AND THE SELECTION CRITERIA MENTIONED IN PARA 1 ABOVE AFFORD VERY REASONABLE PROTECTION. INDEED, THESE CRITERIA PROPOSED FOR THE RENEWED PROGRAM ARE MORE STRICT THAN THAT APPLIED PREVIOUSLY IN THE ATLANTIC (24-HOUR INSTEAD OF AN 18-HOUR RESTRICTION.) THE U.S. ITSELF IS THE NATION MOST LIKELY TO BE IMPACTED IF THE SEEDED STORM SHOULD EVENTUALLY REACH LAND. THE PROPOSAL HAS BEEN JUDGED TECHNICALLY SOUND AND FEASIBLE BY NOAA; IT IS ESSENTIALLY A CONTINUATION OF EXPERIMENTS CARRIED OUT IN THE ATLANTIC DURING THE 1960'S. THE U.S. HAS CONDUCTED NO HURRICANE SEEDINGS IN THE ATLANTIC OR ELSEWHERE SINCE 1971. IT SHOULD BE EMPHASIZED THAT THIS IS ONLY ONE EXPERIMENTAL SEEDING.

3) THE APPLICATION OF THIS TECHNOLOGY, IF STORMFURY EXPERIMENTS SHOULD DEMONSTRATE THAT IT IS SUITABLE FOR OPERATIONAL PURPOSES, COULD BRING GREAT BENEFITS TO THOSE REGIONS OF THE WORLD THAT REGULARLY SUFFER HEAVY LOSS OF LIFE AND SEVERE DAMAGE FROM TROPICAL STORMS. THE USG CONSIDERS

THE STORMFURY PROJECT AS RESPONSIVE TO UN RESOLUTION 2914 (XXVII) OF NOVEMBER 9, 1972, WHICH CALLS UPON THE WORLD METEOROLOGICAL ORGANIZATION AND MEMBER STATES TO QUOTE DISCOVER WAYS AND MEANS TO MITIGATE THE HARMFUL AFFECTS OF TROPICAL STORMS AND TO REMOVE OR MINIMIZE THEIR DESTRUCTIVE POTENTIAL UNQUOTE.

4) FYI ONLY. PRESENT USG POLICY REQUIRES THAT IF, AS A RESULT OF CONSULTATIONS WITH POTENTIALLY AFFECTED COUNTRIES (ADDRESSEE POSTS, LONDON FOR BELIZE, VIRGIN ISLANDS, CAYMAN ISLANDS, BERMUDA, AND ANTIGUA; THE HAGUE FOR DUTCH ANTILLES; PARIS FOR FRENCH ANTILLES), THERE IS ANY OBJECTION TO THIS TEST, THE SITUATION WILL BE REVIEWED BY A NEWLY ESTABLISHED NSC AD HOC GROUP ON WEATHER MODIFICATION
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CHAired BY OES ASSISTANT SECRETARY MINK. IF THE ISSUE OF LIABILITY FOR DAMAGE DONE BY A SEEDED HURRICANE IS RAISED

BY A FOREIGN OFFICIAL DURING THE CONSULTATIONS REQUESTED IN INSTRUCTIONS BELOW, WE WILL ALSO RECONSIDER THE EXPERIMENT. THE AD HOC GROUP IS REVIEWING PLANNING AND PROPOSED IMPLEMENTATION OF FUTURE EXPERIMENTS, INCLUDING THE ISSUES ARISING IN CASE OF REAL OR PERCEIVED DAMAGE CAUSED BY SEEDING. END FYI.

5) ACTION REQUESTED: DRAWING ON INFORMATION IN PARAS 1-3 ABOVE, ADDRESSEES ARE REQUESTED TO DISCUSS PROJECT STORMFURY WITH FOREIGN OFFICE AND/OR OTHER APPROPRIATE HOST COUNTRY AUTHORITIES. WITHOUT REQUESTING FORMAL CLEARANCE OR APPROVAL FOR CONDUCTING THE EXPERIMENT, YOU SHOULD INDICATE THAT THE US WISHES TO INFORM HOST GOVERNMENT OF THE PROPOSED TEST AND WOULD BE HAPPY TO RECEIVE ANY COMMENT OR RESPOND TO ANY QUESTIONS CONCERNING IT. IF YOUR HOST GOVERNMENT SEEKS ADDITIONAL SCIENTIFIC AND TECHNICAL BACKGROUND WHICH CANNOT BE SATISFIED BY CABLE RESPONSE, NOAA IS PREPARED TO SEND SCIENTISTS OR OFFICIALS TO DISCUSS THE PROPOSAL IN DETAIL AND YOU MAY SO STATE. IF THE HOST AUTHORITY RAISES GENERAL OBJECTION TO THE PROPOSED TEST, YOU SHOULD INDICATE THAT YOU WILL REPORT THEIR VIEWS TO THE STATE DEPARTMENT. IF THE ISSUE OF LIABILITY FOR DAMAGE IS RAISED, YOU SHOULD INDICATE WE ARE GIVING CAREFUL CONSIDERATION TO THIS QUESTION, ALTHOUGH THE CHANCES OF DAMAGE ARE EXTREMELY SMALL. IF ASKED WHETHER SCIENTISTS FROM COUNTRIES IN THE AREA WOULD PARTICIPATE, YOU MAY STATE THAT EVERY EFFORT WOULD BE MADE TO PROVIDE BRIEFINGS AND TO DISCUSS POSSIBLE COOPERATIVE SCIENTIFIC ACTIONS. IN VIEW OF SHORT TIME BEFORE START OF HURRICANE SEASON, REQUEST POSTS REPORT BY AUGUST 24 THE RESULTS OF
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THESE CONSULTATIONS AND RECOMMENDATIONS CONCERNING CARRY-
ING OUT OF THE PROPOSED 1977 EXPERIMENT. VANCE

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INFO OCT-01 ISO-00 /015 R

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DRAFTED BY ARA/CCA-DEHENDERSON:DPB

APPROVED BY ARA/CCA-WSSMITH

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TO USINT HAVANA PRIORITY

C O N F I D E N T I A L STATE 194514

FOL REPEAT STATE 194514 ACTION NASSAU PORT AU PRINCE SANTO
DOMINGO GUATEMALA LONDON TEGUCIGALPA MANAGUA BOGOTA KINGSTON
BRIDGETOWN PARIS THE HAGUE MEXICO PAORT OF SPAIN MARTINIQUE
CURACAO HAMILTON DTD 16 AUG.

QUOTE

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UNQUOTE CHRISTOPHER

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Message Attributes

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Review Exemptions: n/a
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Secure: OPEN
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TAGS: TPHY, US, XK, XL
To: NASSAU PORT AU PRINCE MULTIPLE
Type: TE
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22 May 2009
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